JVC

# SERVICE MANUAL

## COLOUR TELEVISION

| BASIC CHASSIS |
| --- |
| JK |

# AV-29R8TEE(C)

**This service manual mainly consists of the following items:**

- **The items which differ from those for the AV-29RS(C-M) service manual.**
- **The initial value for each setting item.**

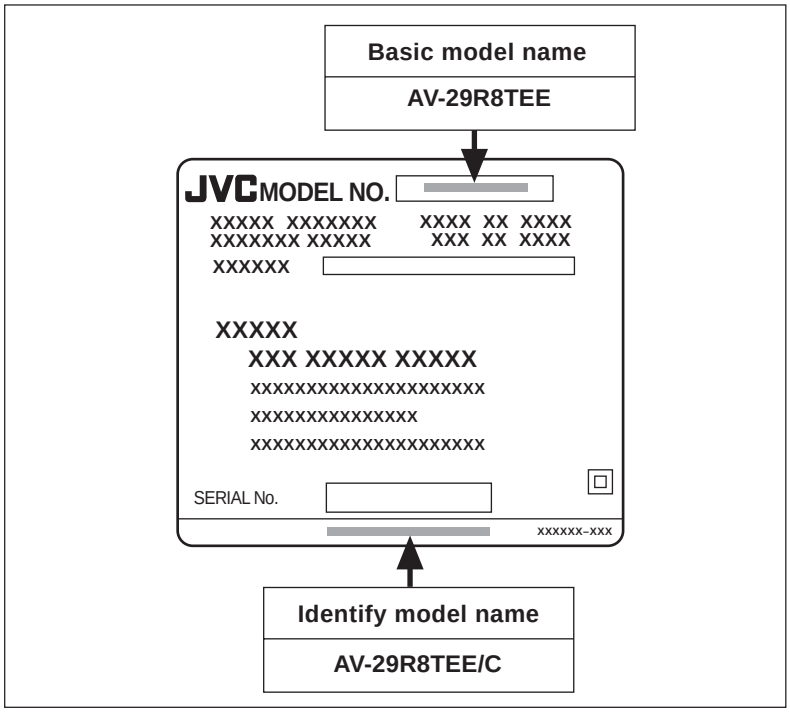
**For details other than those described in this manual, please refer to the following service manual.**

**Reference Service Manual: AV-29RS(C-M) Service Manual (No. 51756, Aug. 2000)**

**Note:** The page in parentheses shows the one for the AV-29RS(C-M) service manual (No. 51756, Aug. 2000).

# HOW TO IDENTIFY MODEL

While referring to the illustration given below, identify model name on the rating label affixed to the rear cover.

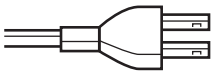
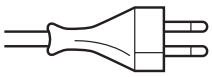



COPYRIGHT © 2000 VICTOR COMPANY OF JAPAN, LTD.

No. 56047
Sep. 2000

# PARTS DIFFERENCE TABLE

The different parts between AV-29RS(C-M) and AV-29R8TEE(C) are described below:

| ⚠ | REF. NO. | AV-29RS(C-M) PART No. | AV-29R8TEE(C) PART No. | PART NAME | DESCRIPTION |
|---|---|---|---|---|---|
| ■ **EXPLODED VIEW PARTS LIST (Pages 35 and 36)** | | | | | |
| ⚠ | 13 | QMPR010-200-E2 or QMPR010-200-K2  | **QMP40D0-200J5 or QMP40D0-200J3**  | POWER CORD | |
| ⚠ | 16 | LC20377-001B-H | **LC20377-009A-H** | RATING LABEL | |
| | 100 | LC10761-002B-H | **LC10761-013B-H** | FRONT CABI. ASSY | Inc. No. 101 - 107 |
| | 101 | LC20532-003B-H | **LC20532-010B-H** | DOOR | |
| ■ **PRINTED WIRING BOARD PARTS LIST [MAIN PWB ASSY] (Page 38-)** | | | | | |
| | — | SJK-1022A-H2 | **SJK-1033A-H2** | MAIN PWB ASSY | |
| | R1010 | NRSA02J-222X | ——— | CH MG R | 2.2kΩ 1/10W J |
| | R1011 | NRSA02J-122X | ——— | CH MG R | 1.2kΩ 1/10W J |
| | R1012 | NRSA02J-331X | ——— | CH MG R | 330Ω 1/10W J |
| | R1013 | NRSA02J-270X | ——— | CH MG R | 27Ω 1/10W J |
| | R1014 | NRSA02J-271X | ——— | CH MG R | 270Ω 1/10W J |
| | R1015 | NRSA02J-102X | ——— | CH MG R | 1kΩ 1/10W J |
| | Q1001 | 2SC2412K/QR/-X | ——— | CHIP TRANSISTOR | |
| | Q1002 | 2SC2412K/QR/-X | ——— | CHIP TRANSISTOR | |
| | IC1701 | M37280MF-173SP | **M37280MF-170SP** | IC (MICROCOMPUTER) | |
| ■ **PRINTED WIRING BOARD PARTS LIST [FRONT CONTROL PWB ASSY] (Page 44)** | | | | | |
| | — | SJK-8011A-H2 | **SJK-8005A-H2** | FRONT CONTROL PWB ASSY | |
| ⚠ | LF8901 | QQR0673-004 | **QQR1035-003** | LINE FILTER | |
| ■ **PRINTED WIRING BOARD PARTS LIST [AV SEL. PWB ASSY] (Page 45-)** | | | | | |
| | — | SJK0S003A-H2 | **SJK0S004A-H2** | AV SEL. PWB ASSY | |
| | R0603 | NRSA02J-102X | ——— | CH MG R | 1kΩ 1/10W J |
| | R0606 | QRG01GJ-181 | ——— | OM R | 180Ω 1W J |
| | R0607 | NRSA02J-123X | ——— | CH MG R | 12kΩ 1/10W J |
| | R0608 | NRSA02J-181X | ——— | CH MG R | 180Ω 1/10W J |
| | R0609 | NRSA02J-123X | ——— | CH MG R | 12kΩ 1/10W J |
| | R0610 | NRSA02J-561X | ——— | CH MG R | 560Ω 1/10W J |
| | R0628 | NRSA02J-0R0X | ——— | CH MG R | 0.0Ω 1/10W J |
| | R0629 | NRSA02J-101X | ——— | CH MG R | 100Ω 1/10W J |
| | R0630 | NRSA02J-101X | ——— | CH MG R | 100Ω 1/10W J |
| | C0610 | NDC21HJ-821X | ——— | CH C CAP. | 820pF 50V J |
| | C0611 | NDC21HJ-470X | ——— | CH C CAP. | 47pF 50V J |
| | C0612 | NDC21HJ-470X | ——— | CH C CAP. | 47pF 50V J |

| ⚠ | REF. NO. | AV-29RS(C-M) PART No. | AV-29R8TEE(C) PART No. | PART NAME | DESCRIPTION |
|---|---|---|---|---|---|
| ■ PRINTED WIRING BOARD PARTS LIST [AV SEL. PWB ASSY] - Continued (Page 45-) | | | | | |
| | C0614 | NDC21HJ-180X | ——— | CH C CAP. | 18pF 50V J |
| | C0616 | QETN1CM-107Z | ——— | E CAP. | 100µF 16V M |
| | C0617 | NCB21EK-104X | ——— | CH C CAP. | 0.1µF 25V K |
| | C0618 | QETN1HM-106Z | ——— | E CAP. | 10µF 50V M |
| | C0619 | NCB21EK-104X | ——— | CH C CAP. | 0.1µF 25V K |
| | C0620 | QETN1HM-106Z | ——— | E CAP. | 10µF 50V M |
| | C0623 | NCB21EK-104X | ——— | CH C CAP. | 0.1µF 25V K |
| | C0624 | QETN1HM-106Z | ——— | E CAP. | 10µF 50V M |
| | C0629 | QETN1HM-106Z | ——— | E CAP. | 10µF 50V M |
| | C0630 | NCB21HK-102X | ——— | CH C CAP. | 1000pF 50V K |
| | C0631 | NCB21HK-102X | ——— | CH C CAP. | 1000pF 50V K |
| | C0632 | NCB21EK-104X | ——— | CH C CAP. | 0.1µF 25V K |
| | C0633 | QETN1HM-106Z | ——— | E CAP. | 10µF 50V M |
| | C0634 | NCB21HK-103X | ——— | CH C CAP. | 0.01µF 50V K |
| | C0635 | NCB21HK-103X | ——— | CH C CAP. | 0.01µF 50V K |
| | C0636 | NDC21HJ-2R0X | ——— | CH C CAP. | 2.0pF 50V J |
| | C0642 | NDC21HJ-2R0X | ——— | CH C CAP. | 2.0pF 50V J |
| | C0645 | NCB21HK-103X | ——— | CH C CAP. | 0.01µF 50V K |
| | C0646 | NCB21EK-104X | ——— | CH C CAP. | 0.1µF 25V K |
| | C0647 | QETN1CM-107Z | ——— | E CAP. | 100µF 16V M |
| | C0648 | NCB21EK-104X | ——— | CH C CAP. | 0.1µF 25V K |
| | C0693 | NCB21EK-104X | ——— | CH C CAP. | 0.1µF 25V K |
| | L0601 | QQL244K-220Z | ——— | PEAKING COIL | 22µH K |
| | L0602 | QQL244K-180Z | ——— | PEAKING COIL | 18µH K |
| | L0605 | QQL244K-4R7Z | ——— | PEAKING COIL | 4.7µH K |
| | D0601 | RD8.2E/B2/-T2 | ——— | ZENER DIODE | |
| | Q0601 | 2SC2412K/QR/-X | ——— | CHIP TRANSISTOR | |
| | IC0603 | MSP3415D-QG-B3X | ——— | IC (M.S. PROCESSOR) | |
| | LC0601 | CE42482-103Y | ——— | EMI FILTER | |
| | X0601 | CE42546-001Z | ——— | X TAL | |
| ■ PACKING PARTS LIST (Page 47) | | | | | |
| | 1 | LC10845-006A-H | **GG10044-018A-H** | PACKING CASE | |
| | 4 | RM-C112-2H | **RM-C117-2H** | REMOCON UNIT | |
| ⚠ | 6 | LCT0664-001A-H | **LCT0819-001A-H** | INST BOOK | |
| | — | ——— | **BT-54012-1** | WARRANTY CARD | |
| ⚠ | — | QAM0055-001 | ——— | CONVERSION PLUG | |

# SPECIFICATIONS (Page 2)

| Item | | CONTENTS |
|---|---|---|
| **Dimensions (W × H × D)** | | 732mm × 588mm × 508mm |
| **Mass** | | 52kg |
| **TV RF System** | | B, G, I, D, K, K1, M |
| **Colour System** | | PAL, SECAM, NTSC3.58, NTSC4.43 |
| **Teletext System** | | FLOF (Fastext), WST (World standard system) |
| **Receiving Frequency** | **VHF (L)** | 46.25MHz ~ 168.25MHz |
| | **VHF (H)** | 175.25MHz ~ 463.25MHz |
| | **UHF** | 471.25MHz ~ 863.25MHz |
| | **CATV** | Mid (X-Z, S1-S10), Super (S11-S20), Hyper (S21-S41) bands receivable |
| **Intermediate Frequency** | | |
| | **VIF Carrier** | 38.0MHz |
| | **SIF Carrier** | 33.5MHz(4.5MHz), 32.5MHz(5.5MHz), 32.0MHz(6.0MHz), 31.5MHz(6.5MHz) |
| **Colour Sub Carrier Frequency** | | |
| | **PAL** | 4.43MHz |
| | **SECAM** | 4.40625MHz, 4.25MHz |
| | **NTSC** | 3.58MHz / 4.43MHz |
| **Power Input** | | AC110 ~ 240V, 50/60Hz |
| **Power Consumption** | | 193W (Max) / 137W (Avg) |
| **Picture Tube** | | Visible size : 68cm measured diagonally |
| **High Voltage** | | 32.0kV ±1.5kV (at zero beam current) |
| **Speaker & Audio Output** | | Open dome speaker<br>10W+10W, 10cm round x 2 |
| **Video Audio Input terminals** | | |
| **Video1** | **S-Video** | Y: 1Vp-p Positive (Negative sync provided, when terminated with 75Ω)<br>C: 0.286Vp-p (Burst signal, when terminated with 75Ω) |
| | **Video** | 1Vp-p 75Ω (RCA pin jack) |
| | **Audio (L/R)** | 500mVrms (–4dBs), High impedance (RCA pin jack) |
| **Video2** | **Video** | 1Vp-p 75Ω (RCA pin jack) |
| | **Audio (L/R)** | 500mVrms (–4dBs), High impedance (RCA pin jack) |
| **Video3** | **Video/Y** | Composite video 1Vp-p 75Ω (RCA pin jack)<br>Component video 1Vp-p 75Ω (RCA pin jack) |
| | **Cb** | Component video B-Y 0.7Vp-p 75Ω (RCA pin jack) |
| | **Cr** | Component video R-Y 0.7Vp-p 75Ω (RCA pin jack) |
| | **Audio (L/R)** | 500mVrms (–4dBs), High impedance (RCA pin jack) |
| **Video4 (Front terminal)** | **S-Video** | Y: 1Vp-p Positive (Negative sync provided, when terminated with 75Ω)<br>C: 0.286Vp-p (Burst signal, when terminated with 75Ω) |
| | **Video** | 1Vp-p 75Ω (RCA pin jack) |
| | **Audio (L/R)** | 500mVrms (–4dBs), High impedance (RCA pin jack) |
| **Video Audio Output terminal** | | |
| | **Video** | 1Vp-p 75Ω (RCA pin jack) |
| | **Audio (L/R)** | 500mVrms (–4dBs), High impedance (RCA pin jack) |
| **Aerial Input Terminal** | | 75Ω Unbalanced, Coaxial |
| **Headphone Jack** | | Stereo mini jack (3.5ø) |
| **AV Compu Link terminal** | | AV Compu Link II, mini jack (3.5ø) |
| **Remote Control Unit** | | RM-C117 (AA/R06 / UM-3 dry battery × 2) |

*Design & specifications are subject to change without notice.*

# SPECIFIC SERVICE INSTRUCTIONS

## SETTING OF SYSTEM CONSTANT SET (Page 10)

**Table 1**

| CONTENTS | VARIABLE RANGE | INITIAL SETTING VALUE |
|---|---|---|
| **COLOUR** | → MULTI → TRIPLE → PAL → | MULTI |
| **MSP** | → YES → NO → | NO |
| **SUPER BASS** | → YES → NO → | NO |
| **CENTER SPEAKER** | → YES → NO → | NO |
| **TEXT** | → YES → NO → | YES |
| **BLUE BACK MUTE** | → YES → NO → | NO |
| **VOLUME LIMIT** | → YES → NO → | YES |
| **COLOUR AUTO** | → YES → NO → | NO |
| **TILT** | → YES → NO → | YES |
| **C-TRAP** | → 1 → 0 → | 1 |
| **E.M.C.** | → YES → NO → | NO |
| **N/S WHITE BACK** | → YES → NO → | NO |
| **7 LED SPEED** | → 00 → 10 → 20 → ... → 1250 → 1270 ← 1260 ← | 100 |

## USER SETTING CONDITIONS (Page 10)

**Table 2**

| **PICTURE SETTING** | | **FEATURES** | |
|---|---|---|---|
| PICTURE MODE | BRIGHT | SLEEP TIMER | OFF |
| CONTRAST | CENTER | ON TIMER | PR1 0:00 |
| BRIGHT | CENTER | BLUE BACK | ON |
| SHARP | CENTER | CHILD LOCK | OFF |
| COLOUR | CENTER | CHANNEL GUARD | -- |
| TINT | CENTER | AUTO SHUT OFF | OFF |
| WHITE BALANCE | COOL | VIDEO-3 SETTING | COMPONENT |
| **PICTURE FEATURES** | | **INSTALL** | |
| A.A.C | ON | LANGUAGE | ENGLISH |
| AUTO VNR | AUTO | AUTO PROGRAM | -- |
| COLOUR SYSTEM | TV: According to preset CH | EDIT / MANUAL | PRESET CH only |
| | VIDEO: AUTO PAL | | Others: blank |
| ZOOM | REGULAR | **DEMO** | |
| ECO SENSOR | OFF | DEMO | OFF |
| PICTURE TILT | CENTER | **OTHERS** | |
| **SOUND SETTING** | | VOLUME | Appropriate sound level |
| BASS | CENTER | CHANNEL PRESET | Refer to Operating Instructions. |
| TREBLE | CENTER | CHANNEL POSITION | 1 POSITION |
| BALANCE | CENTER | SUB POWER | ON |
| AI VOLUME | ON | ON SCREEN DISPLAY | POSITION INDICATION |
| BBE | ON | TV/VIDEO | TV |
| SPATIALIZER | OFF | SOUND SYSTEM | B/G |

# SERVICE ADJUSTMENTS

## ■ Initial Setting Value

### ■ SETTING OF VSM PRESET (Page 19)

**[INITIAL SETTING VALUES OF VSM PRESET (SUB MENU 5. VSM PRESET)]**

| PICTURE MODE / ITEM | BRIGHT | STANDARD | SOFT |
|---|---|---|---|
| 1. BRIGHT | +0 | +0 | +0 |
| 2. CONT | +17 | +0 | –4 |
| 3. COLOR | +0 | +0 | –1 |
| 4. SHARP | +0 | +0 | –3 |
| 5. TINT | +0 | +0 | +0 |

: Do not adjust.

### ■ SETTING OF WHITE BALANCE PRESET (Page 20)

**[SETTING OF WHITE BALANCE PRESET (SUB MENU 6. WB PRESET)]**

| WHITE BALANCE / ITEM | COOL | MID | WARM |
|---|---|---|---|
| 1. R DRIVE | 0 | –3 | +26 |
| 2. B DRIVE | 0 | –23 | –27 |

: Do not adjust.

## ■ VIDEO / CHROMA CIRCUIT ADJUSTMENT (Page 20)

| CONTENTS | | PAL | SECAM | NTSC 3.58 | NTSC 4.43 |
|---|---|---|---|---|---|
| 1. CUTOFF | R | –60 | | | |
| | G | –60 | | | |
| | B | –60 | | | |
| 2. DRIVE | R | +0 | | | |
| | B | +0 | | | |
| 3. BRIGHT | TV | 0 | +3 | +1 | — |
| | VIDEO | –1 | +2 | +2 | — |
| | COMPONENT | –2 | | | |
| 4. CONT | TV | –15 | 0 | 0 | — |
| | VIDEO | 0 | 0 | 0 | — |
| | COMPONENT | +2 | | | |
| 5. COLOUR | TV / VIDEO | +10 | +18 | +0 | 0 |
| | COMPONENT | +8 | | +17 | |
| 6. TINT | TV | +6 | +6 | +7 | 0 |
| | VIDEO | +6 | +6 | +14 | 0 |
| | COMPONENT | +6 | | 0 | |
| 7. BLACK OFFSET | R-Y | — | 0 | — | — |
| | B-Y | — | 0 | — | — |
| 8. SHARP | TV | –14 | –13 | –12 | — |
| | VIDEO | –8 | –7 | –9 | — |
| | COMPONENT | –10 | | | |

**: Do not adjust.**

### Adjustment of SUB COLOUR-II (Page 23)

| Adjustment part | Description |
|---|---|
| **5. COLOUR** | |
| PAL COLOUR | Value **(A)** in the figure: Set to –**3V (W & G)**. |
| SECAM COLOUR | Value **(A)** in the figure: Set to –**5V (W & G)**. |
| NTSC 3.58 COLOUR | Value **(A)** in the figure: Set to **+3V (W & G)**. |

### Adjustment of SUB TINT-II (Page 24)

| Adjustment part | Description |
|---|---|
| **6. TINT** | |
| NTSC 3.58 TINT | Value **(B)** in the figure: Set to **+4V (W & Cy).** |

## ■ DEFLECTION CIRCUIT ADJUSTMENT (Page 26)

**[DEFLECTION ADJUSTMENTS INITIAL SETTING VALUE (SUB MENU 4. DEF)]**

| Setting item | Adjustment name | Initial setting value | | | | | |
|---|---|---|---|---|---|---|---|
| | | REGULAR | | ZOOM | | 16:9 | |
| | | 50Hz | 60Hz | 50Hz | 60Hz | 50Hz | 60Hz |
| 1. V-SHIFT | Vertical shift | –5 | –1 | 0 | +1 | 0 | 0 |
| 2. V-SIZE | Vertical size | +7 | –1 | +36 | +35 | –39 | –39 |
| 3. SUBTITLE | Subtitle | 0 | +1 | –7 | +7 | 0 | 0 |
| 4. H-CENT | Horizontal center | –10 | +5 | –1 | –1 | 0 | –1 |
| 5. H-SIZE | Horizontal size | –12 | –1 | –4 | –4 | 0 | –1 |
| 6. EW-PIN | Side pin correction | –3 | +1 | –4 | –4 | +2 | 0 |
| 7. TRAPEZ | Trapezoidal distortion correction | +4 | –2 | 0 | –1 | 0 | +1 |
| 8. EW.COR.L | Corner pin correction Low side | –2 | 0 | –1 | –1 | +1 | +1 |
| 9. EW.COR.H | Corner pin correction High side | –2 | 0 | 0 | 0 | +1 | +1 |
| 10. V.S-COR | Vertical size correction | +13 | 0 | 0 | 0 | 0 | 0 |
| 11. V-LIN | Vertical Linearity | +2 | –1 | –1 | –1 | +1 | 0 |
| 12. H-BLK-R | Horizontal Blanking Right | 0 | 0 | 0 | 0 | +77 | 0 |
| 13. H-BLK-L | Horizontal Blanking Left | 0 | 0 | 0 | 0 | +2 | 0 |
| 14. V-EHT | V size correction level caused by EHT change | –4 | 0 | 0 | 0 | 0 | 0 |
| 15. H-EHT | H size correction level caused by EHT change | –3 | 0 | 0 | 0 | 0 | 0 |
| 16. EHT-GAIN | Size correction gain caused by EHT change | +3 | 0 | 0 | 0 | 0 | 0 |

**: Do not adjust.**

## ■ AUDIO CIRCUIT ADJUSTMENT (Page 30)

**[AUDIO ADJUSTMENTS INITIAL SETTING VALUE (SUB MENU 3. AUDIO)]**

| Setting item | Variable range | Fixed value |
|---|---|---|
| 1. ERROR LIMIT | 000H ~ FF0H | 100H |
| 2. A2 ID THR | 00H ~ FFH | 14H |
| 3. BASS | –17 ~ +17 | +0 |
| 4. TREBLE | –17 ~ +17 | +0 |

**: Do not adjust.**

JVC
**VICTOR COMPANY OF JAPAN, LIMITED**
TELEVISION RECEIVER DIVISION 1106 Heta, Iwai-city, Ibaraki-prefecture, 306-0698, Japan